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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,405

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Eric E. Schadt

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JONES DAY
222 EAST 41ST ST
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EXAMINER

DEJONG, ERIC S

ART UNIT

PAPER NUMBER

1631

MAIL DATE

DELIVERY MODE

02/18/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,405	Applicant(s) SCHADT ET AL.	
	Examiner ERIC S. DEJONG	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 72,86,126-159 and 168-202 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 72,86,126-159 and 168-202 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claims 1-71, 73-85, 87-125, 160-167 are canceled. Claims 72, 86, 126-159, and 168-202 are pending.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim 72, drawn to a computer program product for use in conjunction with a computer system comprising a clustering module and an analysis module.

Group II, claim 86, drawn to a computer system comprising a central processing unit, a memory coupled thereto, a classification module, and a genetic analysis module.

Group III, claims 126-159, drawn to a method for confirming an association of a QTL or gene with a clinical trait comprising mapping regions of a genome and confirming the association.

Group IV, claims 168-194, drawn to a method of identifying a molecular target for a second trait in a second species comprising identifying a first gene, mapping said first gene to a genome locus in a second species, determining a marker or haplotype corresponding to the second locus, and identifying said locus as a molecular target.

Group V, claims 195-200, drawn to a computer program product and system for identifying a molecular target comprising a central processing unit, a memory coupled thereto, instructions for identifying a first gene, instructions for mapping said first gene to a locus, and instructions for determining whether a marker or haplotype associated with a second trait.

Group VI, claims 201 and 202, drawn to a computer program product and system for confirming an association of a QTL or gene with a clinical trait comprising a central processing unit, a memory coupled thereto, instruction for mapping genome regions comprising a first eQTL and instructions for confirming the association of a query QTL.

The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical feature of Group I is a computer program comprising a clustering module and an analysis module. In the instant case, the claimed clustering module and analysis module do not require any of the recited special technical features of any other identified group of invention.

The special technical feature of Group II is a computer system comprising a central processing unit, a memory coupled thereto, a classification module, and a genetic analysis module. In the instant case, the claimed classification module and genetic analysis module do not require any of the recited special technical features of any other identified group of invention.

The special technical feature of Group III is the active process steps of mapping regions of a genome and confirming the association. In the instant case, the active process steps of mapping regions of a genome and confirming the resultant association do not require any of the recited special technical features of any other identified group of invention.

The special technical feature of Group IV is the active process steps of identifying a first gene, mapping said first gene to a genome locus in a second species, determining a marker or haplotype corresponding to the second locus, and identifying said locus as a molecular target. In the instant case, the active process steps of identifying a first gene, mapping said first gene to a genome locus in a second species, determining a marker or haplotype corresponding to the second locus, and identifying said locus as a molecular target do not require any of the recited special technical features of any other identified group of invention.

The special technical feature of Group V is a computer program product and system for identifying a molecular target comprising a central processing unit, a memory coupled thereto, instructions for identifying a first gene, instructions for mapping said first gene to a locus, and instructions for determining whether a marker or haplotype associated with a second trait. In the instant case, the claimed instructions for identifying a first gene, instructions for mapping said first gene to a locus, and instructions for determining whether a marker or haplotype associated with a second trait do not require any of the recited special technical features of any other identified group of invention.

The special technical feature of Group VI is a computer program product and system for confirming an association of a QTL or gene with a clinical trait comprising a central processing unit, a memory coupled thereto, instruction for mapping genome regions comprising a first eQTL and instructions for confirming the association of a query QTL. In the instant case, the claimed instruction for mapping genome regions comprising a first eQTL and instructions for confirming the association of a query QTL do not require any of the recited special technical features of any other identified group of invention.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC S. DEJONG whose telephone number is (571)272-6099. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran can be reached on (571) 272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ERIC S. DEJONG/
Primary Examiner, Art Unit 1631

Application/Control Number: 10/540,405
Art Unit: 1631

Page 7